

Clocks require electricity to operate, but this unit does not require this source of energy except during the twilight or dark hours. Maintenance and access to the clock unit is eliminated.

We were very pleased to realize that the cost of the electric eye switch was about one-third of that on an electric clock, and it is much easier to install on a light trap. Presently, the Toledo Area Sanitary District is using six of these units and we are well satisfied with the service that they are giving us.—P. B. B., Jr.

#### VIBRATION-PROOF MOSQUITO TRAP

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For several years we have been operating mosquito light traps in cooperation with the Bureau of Vector Control, Department of Public Health in California. These are "American Model" traps. Even using "Vibration Service" light bulbs, these traps take considerable bulb replacement.

Last fall we decided the bulb failure was due to vibration from the fan motor, so we tried to find a way to eliminate it. We finally came up with the idea of changing the solid motor mounts to springs, using three quite stiff coil springs fastened to the tube sides, suspending the motor in the center of the tube. We feel this has been very satisfactory. Normally we would have replaced four to six bulbs by this time of year and this year we have replaced only two.

#### A GRANULE "SHOOTER"

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Applying the new hard core insecticide granules by a controlled air flow intrigued Lee Crawford, Foreman, Consolidated Mosquito Abatement District in the fall of 1960. Faced with the task of larviciding miles of weed-grown drain ditches, cattail-filled ponds and other large mosquito sources where liquid sprays had always given uncertain results, he started searching for something better and faster than the HORN hand applicator to apply granules. Power spreaders mounted on the vehicle were excellent for open areas with low vegetation but this type of mosquito source was only a small fraction of the total problem. Something that would shoot the granules over high vegetation, fences, ditch banks and other obstructions in a directed pattern seemed the best approach, so Lee started experimenting.

Each District Jeep is equipped with a constant pressure spray unit, supplied by a heavy duty air compressor operated from a power take-off on the



FIG. 1.—Consolidated Mosquito Abatement District's "home-made" airgun.



FIG. 2.—Operator applying granules with the airgun in comparative comfort.

vehicle. After much trial and error an airgun (Fig. 1) was developed that served the need well. An operator sitting in the Jeep (Fig. 2) could shoot the granules 35 to 40 feet in any direction desired. Shooting into the wind shortened the throw somewhat but rarely required moving to rougher ground to treat down wind, or stopped the operation. Blow-back and poor aiming has occurred but this presented no hazard from the hard-surfaced, dust-free granules. Larval kills in even the heaviest vegetation are excellent.

The application of granules with an airgun has very quickly developed into a welcome aid in aquatic larvae control. Commercial sand blasting equipment to replace the home-made guns and insecticide can now be supplied at reasonable rates. Equipment costs will probably determine whether the inexpensive district-made gun or the finely tooled commercial gun is used. Either will do a good job of getting the granules over and into areas covered with vegetation.